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EXAMINER	
ZIA, MOSSADEQ	
ART UNIT	**PAPER NUMBER**
2134	5

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/627,558	HERDER, THOMAS J.	
	Examiner	Art Unit	
	Mossadeq Zia	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 12 is rejected under **35 U.S.C. 102(b)** as anticipated by Patent No. 4,998,279, Weiss, et al.

3. Regarding claim 12, Weiss et al disclose a fraud prevention method for use in a transaction-card-based system having a conventional authentication process, said comprising the step of:

determining, by utilizing said conventional authentication process, if a fraudulent transaction is being attempted in said transaction-card-based system by a user using a transaction card (PIN, Weiss, col. 3, line 22-24);

if so, biometrically interrogating said user to obtain a biometric sample from said user (voice pattern, Weiss, col. 4, line 36-42); and

upon obtaining said biometric sample, denying access to said user for said transaction in said transaction-card-based system if said biometric sample does not match an entry stored in a biometric profile database inherently associated with said transaction card's owner (Weiss, col. 4, line 47-52).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 8, 11, 13, 14, 16, 18, 20-22 are rejected under **35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view of Patent No. US 20010048025 A1, Shinn.

6. Regarding claims 1, 16 Weiss discloses a method of validating a user for a transaction to be effectuated by using a transaction card, comprising the steps of:

configuring a biometric profile for said user, said biometric profile including a plurality of biometric samples related to said user (Weiss, col. 3, line 49-52);

biometrically interrogating said user when said transaction is attempted by said user (Weiss, col. 1, line 64-66);

monitoring a biometric response generated with respect to said user in response to said step of biometric interrogation (Weiss, col. 1, line 68; col. 2, line 1);

determining if said biometric response matches a biometric sample in said biometric profile (Weiss, col. 2, line 19-20); and

if so approving said user for the transaction (Weiss, col. 2, line 21).

But fail to show associating said biometric profile with an indicium assigned to said transaction card (Weiss, col. 3, line 22-24, col. 4, line 12-15).

However Shinn teaches authenticating a smart card user at a reader device makes use of an application on a smart card microprocessor on which information fields relating

to biometric information for the user (indicium) and a table of pre-defined probability of occurrence values for user authentication is stored (Shinn, page 2, section [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Shinn to gain the benefit of providing a system and method of biometric smart card user authentication which automatically adjusts the probability of occurrence or non-occurrence of false acceptance of an impostor and false rejection of a valid user without the necessity of reprogramming the reader system software (Shinn, page 1, section [0009]).

7. Regarding claim 8, Weiss discloses a method of validating a user for a call to be effectuated over a Public Switched Telephone Network (PSTN) using a calling card, comprising the steps of:

configuring a personalized profile for said user, said personalized profile including a plurality of voice samples elicited from said user in response to a plurality of personalized questions directed to said user (Weiss, col. 3, line 49-52);

determining if a voice verification is needed with respect to said user when said call is attempted by said user (Weiss, col. 4, line 23-25);

if so, querying said user for a voice response to a question that is randomly selected from the said plurality of personalized questions (Weiss, col. 1, line 64-66);

verifying if said voice response matches a corresponding voice sample in said voice profile (Weiss, col. 2, line 19-20); and

if so, approving said user for said call involving said calling card (Weiss, col. 2, line 21).

but fail to show associating said personalized profile with an indicium assigned to said calling card;

However Shinn teaches authenticating a smart card user at a reader device makes use of an application on a smart card microprocessor on which information fields relating to biometric information for the user (indicium) and a table of pre-defined probability of occurrence values for user authentication is stored (Shinn, page 2, section [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Shinn to gain the benefit of providing a system and method of biometric smart card user authentication which automatically adjusts the probability of occurrence or non-occurrence of false acceptance of an impostor and false rejection of a valid user without the necessity of reprogramming the reader system software (Shinn, page 1, section [0009]).

8. Regarding claim 13, Weiss discloses claim 12 above, but fail to show further disclose said fraudulent transaction is selected from the group consisting of placing a calling card call, accessing personal information data, accessing a bank account, accessing an Internet account, accessing a credit report, accessing employment records, and accessing medical records.

However, Shinn teaches that authentication is the process by which an entity such as a financial institute or bank or other type of institution, identifies and verifies its customers (page 1, sec. [0003]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Shinn to gain the benefit of providing a system and method of biometric smart card user authentication which

automatically adjusts the probability of occurrence or non-occurrence of false acceptance of an impostor and false rejection of a valid user without the necessity of reprogramming the reader system software (Shinn, page 1, section [0009]).

9. Regarding claim 14, Weiss discloses claim 12 above, **but fail** to further disclose said entry inherently associated with said transaction card's owner comprising a voiceprint associated with said owner.

However Shinn teaches authenticating a smart card user at a reader device makes use of an application on a smart card microprocessor on which information fields relating to biometric information for the user (inherently associated) and a table of pre-defined probability of occurrence values for user authentication is stored (Shinn, page 2, section [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Shinn to gain the benefit of providing a system and method of biometric smart card user authentication which automatically adjusts the probability of occurrence or non-occurrence of false acceptance of an impostor and false rejection of a valid user without the necessity of reprogramming the reader system software (Shinn, page 1, section [0009]).

10. Regarding 18, Weiss and Shinn discloses claim 16 above, and further disclose said entry inherently coupled to said user comprising a voiceprint associated with said user (Weiss, col. 3, line 49-51).

11. Regarding 20, Weiss and Shinn discloses claim 16 above, and further disclose said terminal comprises a wireline phone (Weiss, col. 4, line 49-52).

12. Regarding 21, Weiss and Shinn discloses claim 16 above, and further disclose said terminal comprises an Internet phone (Weiss, col. 4, line 49-52).

13. Regarding 22, Weiss and Shinn discloses claim 16 above, and further disclose said terminal comprises a wireless medium device (Weiss, col. 4, line 49-52).

14. Claim 2 is rejected under **35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view of Patent No. US 20010048025 A1, Shinn in further view of "Speaker Recognition in Telecom Applications" by Boves et al.

15. Regarding claim 2, Weiss and Shinn discloses claim 1 above, **but fails** to disclose a portion of said plurality of biometric samples comprises voice sample generated by said user responsive to a plurality of questions directed to said user in said configuration step, and further wherein said step of biometric interrogation involves querying said user for voice response to a randomly selected question of said plurality of questions.

However, Boves et al teaches a speaker verification system (SV) that will select random utterance, read it to the caller, and ask the caller to repeat it. SV will ask the claimant to repeat random digit sequences, or random sequence of numbers between 21 and 99 (randomly selected question).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Boves et al. to include the mentioned system so it solves the problem of SV systems which can be fooled by playing a recording of a speaker saying her or his password (Boves, pg. 203, col. 2, paragraph highlighting "text-prompted").

16. Claim 3 is rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view Patent No. US 20010048025 A1, Shinn in further view of Patent No. 6,484,260, Scott et al.

17. Regarding claim 3, Weiss discloses claim 1 above, and further disclose steps of:

determining if said indicium is a valid personal identification number operating as a password associated with said transaction card (compare, Weiss, fig. 3A, label 45, 110); and

denying access to said user for said transaction if said indicium is not a valid identification number associated with said transaction card (Weiss, fig. 3A, label 45, 110).

But does not disclose prompting said user to input said indicium assigned to said transaction card after determining the said biometric response matches a biometric sample of said biometric profile.

However, Scott et al teach portable personal identification device (transaction card Scott, col. 1, line 47) wherein a processing unit can include a processor circuit, a memory and an encoder, wherein the memory stores the biometric data, and wherein the verification signal includes an encrypted signal encrypted by the encoder. In one embodiment, the encoder includes an encoding circuit, and the verification signal further includes an ID code indicative (indicium) of the enrolled person or the device (Scott, col.2, line 15-20, fig. 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Scott et al to include above

teaching to gain the advantage of a portable personal identification device providing secure access to a host facility (Scott, col. 1, line 47-48).

18. Claims 5 and 17 are rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view Patent No. US 20010048025 A1, Shinn in further view of Patent No. 6,199,067, Geller.

19. Regarding claim 5, Weiss and Shinn discloses claim 1 above, but fails to clearly disclose the step of configuring a biometric profile for said user is effectuated manually.

However, Geller teaches User Profile is encrypted and protected by a password or by other access control means such as biometrics (e.g. a fingerprint scan, voice pattern matching, etc.) such that only the user can access and update his or her User Profile (Gellar, effectuated manually, col. 16, line 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Gellar to such that the User Profile is stored "confidentially" (Gellar, col. 16, line 49).

20. Regarding 17, Weiss and Shinn discloses claim 16 above, but fail to show said entry inherently coupled to said user comprises at least one of a fingerprint, retinal scan, palm print, and implant ID chip associated with said user.

However, Geller teaches User Profile is encrypted and protected by a password or by other access control means such as biometrics (e.g. a fingerprint scan, voice pattern matching, etc.) such that only the user can access and update his or her User Profile (Gellar, effectuated manually, col. 16, line 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Gellar to such that the User Profile is stored "confidentially" (Gellar, col. 16, line 49).

21. Claim 15 is rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 5,623,539, Weiss et al. in view Patent No. 6,199,067, Geller.

22. Regarding claim 15, Weiss discloses claim 12 above, but fails to show said entry inherently associated with said transaction card's owner comprises at least one of a fingerprint, retinal scan, palm print, and implanted ID chip associated with said owner.

However, Geller teaches User Profile is encrypted and protected by a password or by other access control means such as biometrics (e.g. a fingerprint scan, voice pattern matching, etc.) such that only the user can access and update his or her User Profile (Gellar, effectuated manually, col. 16, line 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss as per teaching of Gellar to such that the User Profile is stored "confidentially" (Gellar, col. 16, line 49).

23. Claims 6 and 7 are rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view of Patent No. US 20010048025 A1, Shinn in further view of Patent No. 5,802,199, Pare, Jr. et al.

24. Regarding claim 6, Weiss and Shinn discloses claim 1 above, but fails to disclose the step of configuring a biometric profile for said user is effectuated automatically.

However, Pare, Jr. et al teaches a purging engine for deleting biometric samples and personal identification codes (Pare, col. 4, line 33-35) whereby said biometric samples of a user is deleted from the local computer biometric database if there has been

no attempt to identify an individual upon expiration of a predetermined time limit (Pare, Jr., col. 4, line 42-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Para, Jr. et al to include a purge engine in order to store only biometric samples from those individuals who use the system more often (Pare, Jr., col. 4, line 37-38).

25. Regarding claim 7, Weiss and Shinn discloses claim 1 above, but fails to disclose the step of updating said biometric profile for said user.

However, Pare, Jr. et al teaches a purging engine for deleting biometric samples and personal identification codes (Pare, col. 4, line 33-35) whereby said biometric samples of a user is deleted from the local computer biometric database if there has been no attempt to identify an individual upon expiration of a predetermined time limit (Pare, Jr., col. 4, line 42-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Para, Jr. et al to include a purge engine in order to store only biometric samples from those individuals who use the system more often (Pare, Jr., col. 4, line 37-38).

26. Claims 9, 10 are rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view Patent No. US 20010048025 A1, Shinn in further view of Patent No. 5,406,619, Akhteruzzaman, et al. and in further view of "Speaker Recognition in Telecom Applications" by Boves et al.

27. Regarding claims 9, 10, Weiss and Shinn discloses claim 8 above, and further disclose the steps of:

verifying if said response matched a corresponding sample response in said personalized profile (compare, Weiss, fig. 3A, label 45, 110); and

denying access to said user for said call if said response does not match said corresponding sample response in said personalized profile (Weiss, col. 4, line 49-52, fig. 3B, element 172),

but Weiss and Shinn fails to disclose prompting said user to input a response in response to said question that is randomly selected from plurality of personalized questions (Weiss, col. 3, line 22, 24-25);

However, Boves et al teaches a speaker verification system (SV) that will select random utterance, read it to the caller, and ask the caller to repeat it. SV will ask the claimant to repeat random digit sequences, or random sequence of numbers between 21 and 99 (randomly selected question).

Weiss and Shinn fails to disclose that populating at least portion of said personalized profile with a plurality of Dual Tone Multi Frequency (DTMF) sample response elicited from said user in said configuration step;

However, Akhteruzzaman teach that the user has the option of manually keying in the number to the Universal Authenticator (UA) and dialing the response back to the system manually. In this case a voiced response from the system provides the user with a random number to enter into the UA. Once this is keyed into UA by the user, the UA produces a corresponding output number on its display. This is entered by the user (using a telephone dual tone multi-frequency (DTMF) keyboard if provided or using voice if a speech-recognizing system is supported) to seek authentication (Akhteruzzaman, col. 2, line 65-68, col. 3, line 1-2, 5-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Akhteruzzaman to have the option of manually keying in response and Boves system so it solves the problem of SV systems which can be fooled by playing a recording of a speaker saying her or his password (Boves, pg. 203, col. 2, paragraph highlighting "text-prompted").

28. Claim 19 is rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view Patent No. US 20010048025 A1, Shinn in further view of Patent No. 5,406,619, Akhteruzzaman, et al.

29. Regarding 19, Weiss and Shin discloses claim 16 above, **but fails** to disclose an Automatic Response Unit associated with a Public Switched Telephone Network.

However, Akhteruzzaman teach that the user has the option of manually keying in the number to the Universal Authenticator (UA) and dialing the response back to the system manually. In this case a voiced response from the system provides the user with a random number to enter into the UA. Once this is keyed into UA by the user, the UA produces a corresponding output number on its display. This is entered by the user (using a telephone dual tone multi-frequency (DTMF) keyboard if provided or using voice if a speech-recognizing system is supported) to seek authentication (Akhteruzzaman, col. 2, line 65-68, col. 3, line 1-2, 5-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Akhteruzzaman to have the option of manually keying in responses.

30. Claims 4, 11 are rejected **under 35 U.S.C. 103(a)** as being unpatentable over Patent No. 4,998,279, Weiss in view Patent No. US 20010048025 A1, Shinn in further view of Patent No. 5,893,057, Fujimoto et al.

31. Regarding claims 4, Weiss and Shinn discloses claim 1 above, and further disclose steps of:

confirming that said indicium is a valid personal identification number associated with said transaction card (Weiss, col. 3, line 26-27); and

approving said user for said transaction upon said confirmation (Weiss, col. 4, line 49-52).

But fail to show prompting said user to input said indicium assigned to said transaction card if said biometric response does not match a biometric sample to said biometric profile;

However, Fujimoto teaches that an alternative identification input device for inputting alternative identification information in case said determination signal indicates a failure to match (biometric), said second processing unit performing a predetermined alternative verification procedure (input indicium) based upon said alternative identification information (Fujimoto, claim 30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Scott et al to gain the benefit of recognizing a speaker based upon a voice input over a network in a reliable and efficient manner (Fujimoto, col. 2, line 24-26).

32. Regarding claims 11, Weiss and Shinn discloses claim 1 above, and further disclose steps of:

confirming that said indicium is a valid personal identification number associated with said transaction card (Weiss, col. 3, line 26-27); and

approving said user for said transaction upon said confirmation (Weiss, col. 4, line 49-52).

But fail to show prompting said user to input said indicium assigned to said transaction card if said biometric response does not match a biometric sample to said biometric profile;

However, Fujimoto teaches that an alternative identification input device for inputting alternative identification information in case said determination signal indicates a failure to match (biometric), said second processing unit performing a predetermined alternative verification procedure (input indicium) based upon said alternative identification information (Fujimoto, claim 30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Weiss and Shinn as per teaching of Scott et al to gain the benefit of recognizing a speaker based upon a voice input over a network in a reliable and efficient manner (Fujimoto, col. 2, line 24-26).

Response to Arguments

29. Applicant's arguments with respect to claim 1-22 have been considered but are moot in view of the new ground(s) of rejection. See newly formed rejection above.

Applicant's arguments, see page 13, last paragraph, with respect to claim 3 have been fully considered but is not persuasive. The applicant contests that the rejection does not clearly does not disclose prompting said user to input said indicium assigned to said

transaction card after determining the said biometric response matches a biometric sample of said biometric profile. This examiner respectfully disagrees. The order of the authentication whether biometric, what you are, or entering the indicium, what you know, doesn't change the strength of the security offered for a 2 factor authenticating system.

Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mossadeq Zia whose telephone number is 703-305-8425. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse can be reached on 703-308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mossadeq Zia
Examiner
Art Unit 2134

mz
7/23/04

Andrew Caldwell